Decision and Finding of No Significant Impact

Predator Damage Management to Protect the Federally Threatened Pacific Coast Population of the Western Snowy Plover in Oregon

I. Introduction

The United States Department of Interior, Fish and Wildlife Service, Region 1 (USFWS), U.S. Department of Interior, Bureau of Land Management, Coos Bay District (BLM), and the U.S. Department of Agriculture, Siuslaw National Forest (USFS), in cooperation with the State of Oregon, Department of Fish and Wildlife (ODFW) and Parks and Recreation Department (OPRD) and the U.S. Department of Agriculture, Animal and Plant Health Inspection Service Wildlife Services (APHIS-WS) have prepared an Environmental Assessment (EA) January 22, 2002 that analyzed potential impacts of a proposed program and alternatives to manage predation to protect the Federally and State threatened Pacific Coast population of the western snowy plover (*Charadrius alexandrinus nivosus*) (snowy plover or plover) in Oregon. Based on a review of the EA, the USFWS, BLM and USFS have decided to select the Proposed Action and to issue a Finding of No Significant Impact (FONSI).

The purpose of the selected action is to protect the snowy plover from predation by American crows *(Corvus brachyrhychos)*, common ravens *(Corvus corax)*, red foxes *(Vulpes vulpes)*, raccoons (*Procyon lotor*), striped skunks (*Mephites mephites*), and other predators that threaten its survival and reproductive success. Other predators that were included in the analysis include black rats (*Rattus rattus*), feral cats (*Felis domesticus*), coyotes (*Canis latrans*), mink (*Mustela vison*), opossum (*Didelphis virginiana*), weasels (*Mustela spp.*), gray fox (*Urocyon cinereoargenteus*), Norway rats (*Rattus norvegicus*), gulls (*Larus spp.*), deer mice (*Peromyscus maniculatus*) and raptors[1]. Due to the low numbers and low reproductive success of snowy plovers, predator damage management is needed while measures to protect and restore habitat are ongoing.

The EA evaluated ways by which predator damage management can be carried out to protect the snowy plover from predation that could occur at or around any active or potential breeding, nesting, or foraging sites along the Oregon coast. Current sites include Sutton, Siltcoos, Overlook, Tahkenitch, Tenmile, Coos Bay North Spit, Bandon, New River, and Floras Lake. These sites are located on lands managed by the BLM, USFS, ODFW, OPRD, and the U.S. Army Corps of Engineers (COE), as well as some private lands. Current sites are located in Lane, Douglas, Coos, and Curry counties. Clatsop and Tillamook counties are also included in the scope of analysis because of new or historic nesting sites.

II. Background

The USFWS published a rule on March 5, 1993, listing the Pacific coast population of the western snowy plover as threatened under the Endangered Species Act of 1973, as amended (ESA) (USFWS 1993a). The plover is threatened throughout its range by loss and disturbance of habitat and nesting sites. The primary threats to the snowy plover are believed to be habitat degradation caused by human disturbance, urban development, introduced European beachgrass (*Ammophila spp.*), and predators (USFWS 1999). The Pacific coast breeding population of

[1]/ No lethal control methods will be used on raptors that are special status species, such as the American peregrine falcon, and lethal measures will only be used with other raptors as a last resort.

the snowy plover extends from the State of Washington to Baja California, Mexico, with the majority of breeding birds found in California. Wintering areas are primarily in coastal California and Mexico. All Federal agencies are charged with managing programs to enhance the recovery of Federally listed endangered and threatened species and their habitats (Section 7(a)(1) of the Act).

Besides the Federal listing, the State of Oregon, Fish and Wildlife Commission listed the plover population in Oregon as threatened in 1975. This listing was reaffirmed under the Oregon Endangered Species Act in 1989. The Commission confirmed the species' status as threatened during a 1993 review (ODFW 1994).

Many changes have occurred along the Oregon coast in recent decades. The establishment of European beachgrass has reduced natural dynamic beach and dune processes resulting in the elimination of much snowy plover habitat. Human developments of many types followed and human disturbance continues to increase. Crows, ravens, foxes and skunks have preyed on plover nests (ODFW 1994, TNC 2000). These combined factors contributed to the decline of the coastal sub-population (ODFW 1994).

To maintain snowy plover populations on the Oregon coast, concurrent actions were proposed to improve the habitat, reduce human disturbance, investigate methods of reducing predation, and undertake further research and surveys. Alleviating human disturbance and using predator exclosures at key breeding locales were the most immediate management tools at hand to assist the low coastal populations. To enable recovery of the coastal population, habitat restoration that enhances both nesting and brood rearing is ongoing; habitat restoration reduces predator cover.

The USFWS, BLM, USFS, COE, ODFW, and OPRD have been working cooperatively along with The Nature Conservancy (TNC) to manage snowy plover habitat, recreation impacts, and predation impacts on plovers since the early 1990s. Earlier efforts by ODFW and USFWS began in the early 1980s. Recovery efforts to deter predation have included: removing vegetation, erecting exclosures around plover nest sites, and removing non-native red fox at one site. However, predation will likely remain too high to recover the species.

The USFWS published management guidelines for the snowy plover for Washington, Oregon, California, and Nevada (USFWS 1984), listed the Pacific coast population as threatened in 1993 (USFWS 1993a), and designated critical habitat in 1999 (USFWS 1999). The USFWS is also preparing a Recovery Plan for the Pacific coast plover population with the assistance of the Western Snowy Plover Recovery Team. Management documents are in preparation or have been prepared for particular sites by the BLM, USFS, and OPRD. Many coastal habitat areas have been closed to vehicles in recent years by the OPRD (e.g., Coos Bay North Spit, Siltcoos and Sutton estuaries, and Tenmile Creek). In cooperation with USFS, BLM, and ODFW, OPRD has implemented temporary beach restrictions at known nesting sites since 1994 to protect the plovers from human disturbance.

III. Issues

The following issues were identified during the interagency and public involvement processes as being relevant and were used to drive the analysis and compare the impacts of the alternatives: impacts on predator populations; the effectiveness of the program in meeting established objectives; the potential impacts on species not targeted in predator damage management; impacts on threatened and endangered species, including the snowy plover; the humaneness of the various strategies; and the potential impacts of the program on recreational opportunities.

IV. New information

Corvids, foxes, and unidentified predators continued to prey on nesting plovers during the 2001 nesting season. Following is a summary that shows reasons for nesting failure on all plover nesting sites.

Summary of Nesting Activity on All Sites -2001

Total nests found	86
Failed nests	51
Reasons for nest failure	
Corvid	18
Unknown predator	8
Unknown cause	7
Abandoned	7
Fox	4
Buried by wind blown sand	4
Overwashed	3

V. Decision and Rationale

The alternative courses of action (Alternatives) were developed with input from the lead and cooperating agencies and the public, and were analyzed in the EA against the issues noted above in item 3. A summary of the impacts and the reasons for selecting or not selecting the alternatives is discussed.

Alternative 1: Proposed Action

I herein adopt the Proposed Action, Alternative 1 because it would implement an integrated predator damage management program that would provide the greatest flexibility to managers thereby being the most effective of the alternatives to protect plovers, without significant impact on the environment. The proposed action would first identify individuals or groups of plover predators, and then use the most effective, selective, and humane tools available to deter or remove the species that threaten nesting, breeding, or foraging snowy plovers. Predator damage management will be based on interagency relationships, which require close coordination and cooperation because of overlapping authorities and legal mandates. The lead agencies, in consultation with ODFW and OPRD, may request that APHIS-WS conduct direct damage management to protect the snowy plovers. The lead agencies may also take action themselves, or ODFW or OPRD may take action. A combination of non-lethal and lethal tools described in the EA will be available. Damage management will be directed toward individual problem red foxes, ravens, crows, skunks, raccoons, gulls, feral cats, coyotes, mink, opossum, weasels, gray fox, mice, rats, or raptors that are found to pose a threat to plovers. The EA concluded that the proposed action would have negligible effects on predator populations, low impact on non-target species, was the most likely of the alternatives to benefit plovers, was considered humane, would have minor visual impacts on some recreationists, and would result in low cumulative impacts.

Alternative 2: No Action Alternative

The "No Action" Alternative, or the current program (Alternative 2) would result in no additional action by Federal agencies to protect snowy plovers from predation over current levels. This alternative was not selected because it may not be sufficient to prevent further declines of plovers to predators and may not meet the objectives of the proposal. It provides no protection for plovers away from nest exclosures.

Alternative 3: Nonlethal Control Only

Alternative 3 was developed to address the concerns for the welfare of individual predators. This alternative would have used nonlethal predator damage management measures to prevent losses from predators. This alternative was not selected because it was determined that it would provide less benefit to the plovers than Alternatives 1 and 4, and may not be sufficient to meet the objectives of the proposal. The perception of humaneness would vary. Some people feel that any form of nonlethal control would be more desirable than lethal control. There would be no impact on predators or non-target species, except for feral cats which could be removed from the project locations. Feral cats could be adopted or euthanized by local animal welfare groups. Most people would probably prefer this alternative for humaneness if it were found to be effective in protecting plovers. There could be minor visual impacts on some recreationists. Cumulative impacts were determined to be low.

Alternative 4 - Nonlethal Control before Lethal Control

This alternative was designed to protect the welfare of individual animals if possible, by using lethal means only as a last resort after non-lethal means were attempted first. The impacts of this alternative on predators, non-target species, recreation, and cumulative impacts were found to be similar to Alternative 1, the proposed action. Alternative 4 was not selected because it would add management limitations that could allow more predation on plovers, and would be less effective in protecting plovers than the proposed action.

VI. Public Involvement

The lead and cooperating agencies developed a letter describing the need for action, and the preliminary alternatives and issues, which invited public participation into the preparation of the EA. The invitation for public involvement was sent to 154 groups and individuals who had either expressed an interest in the program, or who were thought to be interested. At the same time, legal notices announcing the intent to prepare an EA and inviting public participation were posted in the Oregonian (10/18/00 and 10/19/00), Headlight Herald (10/18/00), Siuslaw News (10/18/00 and 10/21/00), and the World Newspaper (10/19/00 and 10/20/00). All responses to the invitation for public involvement were considered in the development of the EA.

The predecisional EA and a request for comments were sent to everyone who provided comments or expressed an interest in the EA during any phase of the EA process (May 30, 2001). Legal notices of availability for public review of the EA and an invitation to provide comments were published in the Oregonian (5/29/01), Headlight Herald (5/30/01), Siuslaw News (5/30/01), and the World Newspaper (5/30/01), Register-Guard (5/30/01), Corvallis Gazette-Times (5/30/01), and News-Times (5/30/01).

All public comments were reviewed carefully by the cooperating agencies. The comments were considered in light of the analysis in the EA. Because the EA incorporated all substantive comments received from the

preliminary invitation for public involvement, none of the comments received on the EA would have provided the public or the decision maker with new information that would have changed the results of the analysis, or would have resulted in a different decision. Following is a summary of the public comments on the predecisional EA and agency responses:

Predators role in ecosystem is important; management of predators must be appropriate and ethical. Predators have become scapegoat for plover declines, but they are only a symptom of larger causes (habitat loss and degradation, and human disturbance.)

The cooperating agencies agree that the management of predators must be appropriate and ethical, and that habitat improvement and recreation management are vital components of the overall recovery of plovers. Habitat management and human disturbances management are ongoing and are briefly discussed in the EA, but are outside of the scope of the analysis. See Section 1.2 in the EA which discusses the impact that predation has had on plovers. Because plover numbers are low, predator damage can have a disastrous impact on plovers if not managed at this time. Habitat and recreation management are longer term solutions. When sufficiently recovered, plovers will be allowed to have a more natural interaction with predators. The cooperating agencies plan to implement an alternative that is will effectively reduce predation while also being humane, appropriate to each unique circumstance, and targeted at only those individual animals that are found to threaten plovers. Non lethal methods will always be considered first before lethal methods can be used.

Agencies fragment management strategy thus reducing efficacy of recovery efforts (human recreation and predation are interdependant). Human disturbance is underestimated (more focus needed for human caused attractants such as landfills, refuse containers, fishing and farming practices). Posting areas does not preclude recreationists from destroying nests. ***Recommend rigorously enforced beach closures.***

Agencies have worked together for the past decade through the Snowy Plover Working Team to coordinate management along the entire range of the snowy plover in Oregon. Agencies have always maintained that there are a variety of reasons for the plight of the plover and that unnaturally elevated predator populations are just one. We will continue to work on habitat needs and human related disturbances and continue to rigorously enforce beach closures as we have during the past decade.

The Proposed Action relies on lethal control. A detailed methodolgy and protocol for lethal removal of predators should be submitted to public for review. Proven non-lethal means should be prioritized to minimize need for lethal control.

The proposed action does include lethal control methods, but non-lethal control is an integral part of the alternative. Non-lethal control will always be considered first, before lethal control is implemented. Proven non-lethal means will be the priority. The Decision Model (EA Figure 2) is the site specific method used to select the most effective, humane, and appropriate method based on each unique field situation. A more detailed protocol cannot be realistically developed because plovers, plover predators, and other environmental variables are not static, and are not predictable. The EA discusses how work plans will be developed with the lead agencies. Allowable tools and restrictions are detailed as much as possible in the work plans. Based on the work plans, the wildlife specialist must have the flexibility to assess each unique situation as it is encountered in the field to determine the most appropriate actions based on field conditions, as defined by work plans and this EA.

Before implementing lethal or non-lethal methods, the wildlife specialist must assess the presence of humans or pets, the species and numbers of predators including reproductive status, the life stage of plovers, time of year, weather, local restrictions, history of predation, environmental restrictions on tools, land management policies, and so on. Proven non-lethal methods such as trash management and nest exclosures are a priority and will be implemented at every site before other methods are considered.

Lethal control can be ineffective (e.g. clapper rails declined after 10 ys. of lethal control of red foxes. FWS attributed decline to failure to address urban development).
Wildlife managers at the wildlife refuge in question disagree with this comment. Red fox control had a dramatically positive effect on limiting clapper rail depredations in Anaheim Bay and resulted in the largest population increase and population total over the last two decades (D. Zembal and B. Collins, pers. commun. 2001). Longer term improvements may not be sufficient to recover threatened species without predator damage management when population levels are low and vulnerable to predation.

Disagree that professional damage management results in less suffering. Nature is indifferent, not inhumane. Denning and neck snares are not humane. Non-lethal management of avian predators might be more effective and socially acceptable to public that is increasingly concerned with humane treatment of wildlife.

Lethal control of any animal is a difficult decision that managers must make based on the severity of the need. Humans have the responsibility to ensure that species do not become extinct, but the lead and cooperating agencies agree that the most humane treatment of predators is an important component of the overall decision. Professional damage management is the more appropriate course of action over the option of letting nature take its course. The most humane options that are also effective and appropriate will be used.

The lead agencies recognize that some methods are viewed as inhumane by some people. Non-lethal control is an integral part of the Proposed Action Alternative, and non-lethal control will always be considered first, before lethal control is implemented. Proven non-lethal means will be the priority. Lethal damage control tools remain essential components of the means of resolving damage situations in which the only effective remedy is to remove the problem predators.

Use several techniques in conjunction to reduce predation without lethal control. ***Add "diversion feeding" for predators as nonlethal method.*** **Stress trash removal, clean beach, use predator proof trash receptacles at and near all nesting areas, educational signage on effects of humans and garbage on predation.**

The cooperating agencies considered adding diversion feeding to the list of potential methods but this method was rejected because it has not been proven, and an alternative food source could result in a net increase in predators and possibly increased predation overall. Non-lethal methods such as trash removal, predator proof trash receptacles, and education are stressed.

Opposed to using leghold traps and snares on cats since cats will "explode". Cover cage traps for cats.

The comment is not clear since APHIS-WS is not aware of any situation where cats or other predators "explode" upon capture. Wild animals will normally struggle when captured and so traps are used in the most humane manner possible to reduce stress to captured animals. Cage traps will be placed in shade or covered and leghold traps are padded and equipped with pan tension devices to exclude smaller animals. Traps will be checked daily or more frequently to reduce stress on captured animals.

Habitat restoration should curtail cat immigration and depredation. Support public education to reduce cat predation. Want trap/neuter/return cats to communities near nesting and encourage moving feeding stations away from plovers. FCCO can provide brochures to supplement educational efforts. FCCO can provide referrals if local humane shelters are unable to assist with disposition of trapped feral cats.

Although habitat restoration will remove some of the habitat used by feral cats, we still expect feral cats to remain a potential problem. The BLM has cooperated in a successful effort on Coos Bay's North Spit with a local group, FAWN (Friends of Animals in Need) to humanely remove feral cats. We welcome the support of FAWN and FCCO to help educate the pubic about domestic cats and wild bird populations.

This Decision Notice and FONSI is being mailed to all people who have provided input or expressed interest during any phase of the EA process. In addition, a notice of this decision and FONSI will be published in the newspapers identified above.

VII. Finding of No Significant Impact

A careful review of the EA indicates that there will not be a significant impact on the quality of the human environment as a result of this proposal. I agree with this conclusion, and therefore, determine that an Environmental Impact Statement (EIS) will not be prepared. This determination is based on consideration of the following factors:

1. The proposed activities may occur in localized areas at or around any active or potential breeding, nesting, or foraging sites along the Oregon coast, but only where a threat from predators is determined by experienced wildlife professionals. These sites currently include Sutton, Siltcoos, Overlook, Tahkenitch, Tenmile, Coos Bay North Spit, Bandon, New River, and Floras Lake. These sites are located on lands managed by the BLM, USFS, ODFW, OPRD, and COE, as well as some private lands, and are located in Lane, Douglas, Coos, and Curry counties. Clatsop, Tillamook, and Lincoln counties were included in the scope of analysis because of new or historic nesting sites, and a potential need for predator damage management in the foreseeable future. The proposed activities are not national or regional in scope.

2. The proposed activities will not significantly affect public health and safety. The methods used to control snowy plover predators are highly target specific and are not likely to affect public health and safety. Lethal and invasive predator damage management methods will not be used in recreation areas where the public may be exposed.

3. The proposed activities will not have an impact on unique characteristics of the geographic area such as historical or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecological critical areas. The nature of the methods proposed for alleviating damages are not likely to permanently affect the physical environment. Some visual impacts may occur in recreation areas where the public may be able to view nest exclosures, signs, or other management devices, however, the impacts would be minor and temporary.

4. The effects on the quality of the human environment of the proposed activities are not highly controversial. Although some people are opposed to some aspects of predator damage management, the methods and impacts are not controversial among experts.

5. The possible effects of the proposed activities on the quality of the human environment are not highly uncertain and do not involve unique or unknown risks.

6. The proposed activities do not establish a precedent for actions with future significant effects or represent a decision in principle about a future consideration.

7. There are no significant cumulative effects identified by this assessment. All predator removal will be coordinated with ODFW and will stay within management objectives set for each species. The impacts on each predator species when combined with other known sources of mortality are expected to have a low to negligible impact.

8. The proposed activities will not affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places nor will it cause a loss or destruction of

significant scientific, cultural, or historical resources. Predator damage management in general, does not have the potential to significantly affect historic properties.

9. The proposed activities will fully comply with the Endangered Species Act of 1973, as amended. The proposed activities would not be likely to affect non target Federally or State listed threatened and endangered species. The USFWS concurred that the proposed action would not be likely to adversely affect the brown pelican or bald eagle. The proposed action will be likely to benefit snowy plovers by reducing losses due to predators, thus helping the plover to maintain its population.

   The USFWS issued a Biological Opinion on December 21, 2001 which concluded that the proposed predator control program and the cumulative effects are not likely to jeopardize the continued existence of the western snowy plover and will not destroy or further adversely modify designated critical habitat. I herein agree to implement the reasonable and prudent measures and terms and conditions (to minimize harassment of snowy plovers and to maximize the positive benefits of the recovery action), as stated in the BO.

10. There are no irreversible or irretrievable resource commitments identified by this assessment, except for a minor consumption of fossil fuels for routine operations.

11. The proposed activities will not threaten a violation of Federal, State, or local law or requirements imposed for the protection of the environment. Federal agencies, and the State of Oregon are authorized under Federal and Oregon law to remove predators that threaten the survival of the Pacific coast population of the western snowy plover.

For additional information concerning this decision, please contact:

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Approved by :

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Kemper M. McMaster
State Supervisor

January 22, 2002
Date